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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,240	10/18/2001	David M. Britz	2000-0603	6034

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EXAMINER	
TRAN, DZUNG D	

ART UNIT	PAPER NUMBER
2633	

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/981,240	BRITZ ET AL.	
	Examiner	Art Unit	
	Dzung D Tran	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *24-26* is/are allowed.

6)☐ Claim(s) *1-4,7-9 and 12-23* is/are rejected.

7)☐ Claim(s) *5,6,10 and 11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/18/01& 02/04/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang et al. US patent no. 6,754,450.

Regarding claims 1 and 13, Chang discloses an optical signaling header technique applicable to optical networks for packet –switched routing comprising the steps of:

a demultiplexer 805 for demultiplexing wavelengths (λ1A, λ2A) propagating on a primary metropolitan fiber ring;

a header detector 730 for reading a packet header A1of packet contained within one (λ1A) of said wavelengths (λ1A, λ2A), said packet header having a destination address (col. 18, lines 6-13);

accessing a look-up table 610 (col. 17, line 41);

determining the routing of the incoming packet base on the local address in the look-up table and the destination address embedded in packet (col. 17, line 29 to col.

18, line 13) and switching said packet based on a result of said determining step (col. 18, lines 14-50).

Regarding claim 2, Chang discloses a circuit switch controller 420 (col. 14, line 29) for directing a switch device 430 (col. 14, lines 29-30) to switch a wavelength based on packet's destination in packet 520 and local address in look-up table (col. 14, lines 30-45) and multiplexer 872 for remultiplexing said packets for reinsertion into an ongoing channel.

Regarding claims 3 and 4, as shown above, Chang discloses a circuit switch controller 420 (col. 14, line 29) for directing a switch device 430 (col. 14, lines 29-30) to switch a wavelength based on packet's destination in packet 520 and local address in look-up table (col. 14, lines 30-45), thus it is inherent that a circuit switch controller 420 (col. 14, line 29) directs packet to a local customer via a switching device (or wavelength packet cross-connect) 430 (claim3), or via a distribution node 501 to 507 (claim 4).

3. Claims 12, 14-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Willebrand US patent no. 6,239,888.

Regarding claim 12, Willebrand discloses a terrestrial optical communication network 20 includes a plurality of link head stations 22 that communicate over fiber optic conductor link 26 and free space links 24, the network 20 connected to a primary fiber 26' metropolitan (col. 6, lines 62-66) and a local customer primary

distribution/aggregation node 22c, 28a via transport branchs of a mesh architecture (see figure 1);

a link head station for routing switch a wavelengths and information (e.g. packet, col. 6, lines 47-48) to and from a customer's premises (col. 7, lines 24-38) and handling (or transmit) information over one of a fiber optic conductor link 26 and free space links 24.

Regarding claims 14, 17, 20 and 21, Willebrand discloses in figure 1, a wavelength and information (e.g. packet) further transmits to a secondary aggregation node 22a, 22b, 22f to a tertiary aggregation node 22j, 22i, 22h and to a customer's premises.

Regarding claims 15, 18 and 22, Willebrand further discloses for transmitting optical information to a secondary aggregation node 22a, 22b, 22f via one of a fiber optic conductor link 26 and free space links 24.

Regarding claims 16, 19 and 23, Willebrand further discloses for transmitting optical information to a tertiary aggregation node 22j, 22i, 22h via one of a fiber optic conductor link 26 and free space links 24.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. US patent no. 6,754,450 in view of Willebrand US patent no. 6,239,888.

Regarding claim 7, as per claims above, Chang discloses all the limitations except for packet (or optical information) transmit to customer via free space links. Willebrand discloses transmitting packet (or optical information) via one of a fiber optic conductor link 26 and free space links 24 in figure 1. Since optical signal communication over free space or RF system is well recognized in the art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate teaching of Willebrand in the optical network of Chang in order to take the advantage of free space links that is not requiring a physical installation of fiber and eliminating source of interference (col. 2, lines 31-37). Furthermore, optical signal communication over free space is well recognized in the art and would have been obviously an engineering design choice.

6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. US patent no. 6,754,450 in view of Willebrand US patent no. 6,239,888 and further in view of Jokinen et al. US patent no. 5,729,534.

Regarding claim 8, as per claim above, Chang and Willebrand disclose all the limitations except for a time slot switching. Jokinen discloses a time slot switching (abstract, col. 2, lines 64-67). It would have been obviously to one having ordinary skill in the art at the time the invention was made to incorporate teaching of Jokinen in the optical network of Chang and Willebrand in order to allocate packets into assigned time

slots so that more free time slots is reserved for traffic in case it needed (e.g. overload traffic).

Regarding claim 9, Jokinen further discloses radio control (abstract, col. 3, line 2).

7. Claims 5, 6, 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 24-26 are allowed.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Tsushima et al. U.S. patent no. Wavelength division optical signaling network apparatus and method

b. Jokinen et al. U.S. patent no. 5,729,534. Dynamic allocation and radio capacity in a TDMA system

c. Laine US patent no. 6,252,690. Satellite onboard data transmission system

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DT
12/10/2004

M. R. Sedighian

M. R. SEDIGHIAN
PRIMARY EXAMINER